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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,691	10/14/2004	David Hands	20974YP	9304
210 7590 06/19/2009 MERCK AND CO., INC P O BOX 2000 RAHWAY, NJ 07065-0907				
EXAMINER				
LOEWEN, SUN JAE Y				
ART UNIT		PAPER NUMBER		
1626				
MAIL DATE		DELIVERY MODE		
06/19/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/511,691

**Applicant(s)**

HANDS ET AL.

**Examiner**

SUN JAE Y. LOEWE

**Art Unit**

1626

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 28 and 30-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28 and 30-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 28 and 30-46 are pending in the instant application.

### *Response to Arguments*

2. The arguments filed on April 6, 2009 have been fully considered, however, they are not persuasive in overcoming the 35 USC 103 rejection. This ground of rejection is maintained and made FINAL. Below are responses to Applicant's remarks.

There would have been no motivation in U.S. Patent No. 5,719,147 to have used the hydrochloride salt of the compound 2-(R)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-3-(S)-(4-fluoro)phenylmorpholine. In fact, Example 75 (with reference to Example 70) of U.S. Patent No. 5,719,147 teaches away from the present invention by indicating that the free base of the compound 2-(R)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-3-(S)-(4-fluoro)phenylmorpholine should be employed.

Embodiments taught in the reference use hydrochloride salt as starting material. Eg. see example 101.

There would have been no motivation in U.S. Patent No. 5,719,147 to have conducted the cyclization process at a temperature of about 140-150°C. Example 75 (by reference to Example 70) indicates that 2-(R)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-3-(S)-(4-fluoro)phenyl-4-(3-(5-oxo-1,2,4-triazolo)methyl)morpholine was prepared by heating 2-(R)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-3-(S)-(4-fluoro)phenyl-4-(2-N-methylcarboxy-acetamidroxono)morpholine in 15 ml a mixture of xylenes at reflux for 2 hours. The CRC Handbook of Chemistry and Physics indicates that the boiling point of o-xylene is 144°C, the boiling point of m-xylene is 139°C, and the boiling point of p-xylene is 138°C. There is no indication that the process conditions in Example 75 of heating at reflux in a mixture of xylenes would have actually corresponded to a temperature of 140-150°C and, alternatively, there would have been no direction regarding how the temperature should have been changed.

Heating at reflux in xylenes (ie. mixture of xylenes boiling at 138, 139 and 144) corresponds to the claimed temperature of 140-150 degrees Celsius.

There would have been no motivation in U.S. Patent No. 5,719,147 to use toluene, rather than xylenes. U.S. Patent No. 5,719,147 does not disclose or suggest the use of toluene in any reactions comparable to the claimed process. In fact, Example 75 and similar disclosure in U.S. Patent No. 5,719,147 teaches away from the present invention by suggesting that the xylenes should be employed as the reaction solvent for the alkylation reaction.

Prior art provides for the use of toluene in different embodiments, eg. see example 101.

There would have been no motivation in U.S. Patent No. 5,719,147 to use an inorganic base, rather than the organic base such as N,N-diisopropylethylamine. In fact, U.S. Patent No. 5,719,147 teaches away from the present invention by suggesting that an organic base such as N,N-diisopropylethylamine should have been employed.

Embodiments within the reference provide for the use of inorganic base, see example 17.

There would have been no motivation in U.S. Patent No. 5,719,147 to use a specific solvent which is selected from dimethylformamide, dimethylsulfoxide, N-methylpyrrolidone, acetonitrile, N,N-dimethylacetamide and hexamethylphosphoramide, rather than acetonitrile. In fact, U.S. Patent No. 5,719,147 teaches away from the present invention by suggesting that the acetonitrile would have been required.

Embodiments within the reference provide for the use of specific solvents such as DMF – see example 17.

Even if one of ordinary skill in the art had been motivated to alter the process disclosed in U.S. Patent No. 5,719,147, there would have been no direction in U.S. Patent No. 5,719,147 regarding which specific reagents, solvents, temperature, additional steps and/or other conditions should have been employed in the process.

By routine experimentation, one of ordinary skill can practice various processes (including instant invention) wherein the experimental conditions are altered, with a reasonable expectation of success. The process claimed is taught by the prior art. The modification of the conditions of the process is within the level of ordinary skill – with suggestion based on the various embodiments disclosed (eg. see embodiments noted above and in the office action dated November 6, 2009).

also minimizes the use of toxic solvents. Surprisingly, the present invention also gives the desired compound in 85% yield (page 8, lines 8-9), which is unexpectedly higher than the yield disclosed for the procedure in U.S. Patent No. 5,719,147 (79% yield) (Example 75, column 104).

The change in yield does not appear to be unexpected. Applicant is requested to provide a showing/declaration stating the reasons/explaining why the noted difference in yield is unexpected.

***Conclusion***

**3. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUN JAE Y. LOEWE whose telephone number is (571)272-9074. The examiner can normally be reached on M-F 7:30-5:00 Est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571)272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Golam M. M. Shameem/  
Primary Examiner, Art Unit 1626

/Sun Jae Y. Loewe/  
6-17-2009